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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/621,710	07/17/2003	Ram Raghavan		1535
21269	7590	10/21/2005	EXAMINER	
PEPPER HAMILTON LLP ONE MELLON CENTER, 50TH FLOOR 500 GRANT STREET PITTSBURGH, PA 15219			MARCHESCHI, MICHAEL A	
			ART UNIT	PAPER NUMBER
			1755	

DATE MAILED: 10/21/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No.	Applicant(s)
	10/621,710	RAGHAVAN ET AL.
	Examiner Michael A. Marcheschi	Art Unit 1755

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on 11 August 2005.  
 2a) This action is FINAL.                  2b) This action is non-final.  
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 1-5,7-12,14 and 15 is/are pending in the application.  
 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
 5) Claim(s) \_\_\_\_\_ is/are allowed.  
 6) Claim(s) 1-5,7-12,14 and 15 is/are rejected.  
 7) Claim(s) \_\_\_\_\_ is/are objected to.  
 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.  
 10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
 a) All    b) Some \* c) None of:  
 1. Certified copies of the priority documents have been received.  
 2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | Paper No(s)/Mail Date. _____  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
|  | 6) <input type="checkbox"/> Other: _____                                    |

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 8/11/05 has been entered.

Claims 1-5, 7-12 and 14-15 are rejected under 35 U.S.C. 103(a) as obvious over Tank et al. (268) for the same reasons set forth in the previous office action which are incorporated herein by reference.

Claims 1-5, 7-12 and 14-15 are rejected under 35 U.S.C. 103(a) as obvious over Corrigan et al. (675) for the same reasons set forth in the previous office action which are incorporated herein by reference.

Applicant's arguments filed 8/11/05 have been fully considered but they are not persuasive.

Applicants argue in the first full paragraph on page 6 of the response, that Tank et al. does not disclose the claimed binder content. Applicants arguments are based on the binder content of 10-20 mass percent as defined by the reference. However, the reference states that the content could be as low as 6% by mass and this, when converted to volume percent, still reads on

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the claimed amount. In addition, the claimed invention uses "about" to define the amounts and as is well known "about" permits some tolerance, *In re Ayers*, 154 F 2d 182, 69 USPQ 109.

Finally, the examiner acknowledges the conversion defined in the response, however, the examiner is unclear as to how applicants arrived at the defined amounts because the reference defines that the amount is based on the mass and thus the conversion of mass percent to volume percent is dependent on the composition of the mass (i.e. the specific carbide used).

In the next paragraph, applicants refer to the 6% limitation defined in the reference and state that even if this amount was used, the reference does not teach the claimed invention because this reference apparently does not teach the bimodal particle composition. The examiner disagrees because the reference clearly teaches a bimodal distribution which reads on the claimed distribution. Applicants also appear to argue that the reference does not teach or suggest controlling the combination of the bimodal feed and the metal binder/catalyst to achieve improved abrasion resistance. However, applicants provide no comparative evidence (comparison between the references and the claimed invention) that establishes patentability over this reference. In addition, since the reference uses different particle sized feed, the size of the feed material is controlled to an extent. Assuming arguendo about the controlling aspect, this is immaterial to the claimed invention because the references teach methods and compositions, wherein the methods and compositions comprises to distinct sized diamond crystals (in the claimed amounts) and a support body that contains a metal catalyst (in the claimed amounts). In view of this, the reference controls these limitations by defining specific parameters. Applicants have not shown that controlling the sizes and amounts within the claimed range

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yields unexpected results over the ranges of the references (i.e. comparison between the claimed invention and the references).

Applicants argue that Corrigan does not teach the claimed bimodal composition (i.e. 60-80% coarse). The examiner acknowledges that the amount of coarse particles in this reference is at least about 85% but this still reads on the claimed upper limit of about 80" because both the claimed invention and the reference (see claim 1) use the term "about" which permits some tolerance (*In re Ayers*, 154 F 2d 182, 69 USPQ 109). In view of this, "about 80" as defined by the claimed invention and "about 85" as defined by the reference can broadly read on the same value (i.e. the midpoint thereof) absent evidence to the contrary. Applicants argue that this reference teaches away from the claimed amount of coarse particles, apparently in view of the "preferable" limitations defined in column 6, lines 5-8. The examiner acknowledges these preferable limitations, however, "**a reference can be used for all it realistically teaches and is not limited to the disclosure in its preferred embodiments**" See *In re Van Marter*, 144 USPQ 421. In addition, a **reference is good not only for what it teaches but also for what one of ordinary skill might reasonably infer from the teachings.** *In re Opprecht* 12 USPQ 2d 1235, 1236 (CAFC 1989); *In re Bode* USPQ 12; *In re Lamberti* 192 USPQ 278; *In re Bozek* 163 USPQ 545, 549 (CCPA 1969); *In re Van Mater* 144 USPQ 421; *In re Jacoby* 135 USPQ 317; *In re LeGrice* 133 USPQ 365; *In re Preda* 159 USPQ 342 (CCPA 1968).

In view of the above, the reference still, read on the claimed invention.

Evidence of unexpected results must be clear and convincing. *In re Lohr* 137 USPQ 548.

Evidence of unexpected results must be commensurate in scope with the subject matter claimed.

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*In re Linder* 173 USPQ 356. To establish unexpected results over a claimed range, applicants should compare a sufficient number of tests both inside and outside (i.e. as well as the upper and lower limits) the claimed range to show the criticality of the claimed range. *In re Hill* 284 F.2d 955, 128 USPQ 197 (CCPA 1960).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael A Marcheschi whose telephone number is (571) 272-1374. The examiner can normally be reached on M-F (8:00-5:30) First Friday Off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jerry Lorengo can be reached on (571) 272-1233. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

10/18/05  
MM

Michael A Marcheschi  
Primary Examiner  
Art Unit 1755